

Different versions that were used

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Here are some of the versions of different software that we used. More detailed description can be found in few other text files in the repository.

1 Conda/2022-09-08 on Polaris

This module was used in PointNet-Atlas and FFN Runs on Polaris. The versions of Tensorflow and PyTorch are below:

1.1 TensorFlow

1. tensorflow 2.10.0
2. tensorflow-addons 0.17.1
3. tensorflow-datasets 4.6.0
4. tensorflow-estimator 2.10.0
5. tensorflow-io-gcs-filesystem 0.27.0
6. tensorflow-metadata 1.10.0
7. tensorflow-probability 0.17.0

1.2 PyTorch

1. torch 1.12.0a0+git664058f
2. torch-geometric 2.1.0.post1
3. torch-scatter 2.0.9
4. torch-sparse 0.6.15
5. torch-tb-profiler 0.4.0
6. torchinfo 1.7.0
7. torchmetrics 0.9.3

8. torchvision 0.13.0a0+da3794e

9. torchviz 0.0.2

1.3 Auxiliary

1. cupy-cuda116 10.6.0

2. h5py 3.7.0

3. horovod 0.25.0

4. hydra-colorlog 1.2.0

5. hydra-core 1.2.0

6. jax 0.3.17

7. jaxlib 0.3.15+cuda11.cudnn82

8. keras 2.10.0

9. keras-applications 1.0.8

10. keras-preprocessing 1.1.2

11. mpi4jax 0.3.10.post1

12. mpi4py 3.1.3

2 JLSE Nodes for AMD MI250

It is a little not so straightforward to run on MI250 on JLSE nodes. I had to install things on a separate environment `/home/hossainm/miniconda3/envs/dist-ct-tf-amd-aux-2`. Here are the versions:

2.1 TensorFlow

1. tensorflow-estimator 2.12.0

2. tensorflow-io-gcs-filesystem 0.32.0

3. tensorflow-rocm 2.12.0.560

and these were used with another pre-built module rocm/5.5.0 and openmpi/4.1.1-llvm compiler.

2.2 PyTorch

PyTorch worked out of the box with one of the pre-built modules. That was `conda/amd/2022-01-11`.

1. `torch 1.13.0+rocm5.2`
2. `torchaudio 0.13.0+rocm5.2`
3. `torchvision 0.14.0+rocm5.2`

But, these were used with another pre-built module `rocm/5.5.0` and `openmpi/4.1.1-llvm` compiler.

3 Frameworks/2023.05.15.001 on Sunspot

We used this framework module on Sunspot. The versions here are:

3.1 TensorFlow

1. `tensorflow 2.12.0`
2. `tensorflow-estimator 2.12.0`
3. `tensorflow-io-gcs-filesystem 0.32.0`

3.2 PyTorch

1. `torch 1.13.0a0+git6c9b55e`
2. `torchvision 0.14.1a0+5e8e2f1`